

=> E KAWAKAMI JUN ICHI/AU 25
 E1 3 FAWAFAMI JUJI/AU
 E2 1- FAWAFAMI JUN/AU
 E3 6 --> FAWAFAMI JUN ICHI/AU
 E4 1 FAWAFAMI JUN KA/AU
 E5 3 FAWAFAMI JUNI CHI/AU
 E6 1 FAWAFAMI JUNI CHIRO/AU
 E 3 FAWAFAMI JUNI ICHI/AU
 E7 6 FAWAFAMI JUNI ICHI/AU
 E8 1 FAWAFAMI JUNI ICHI/AU
 E9 1 FAWAFAMI JUNI ICHI/AU
 E10 1 FAWAFAMI JUNI ICHI/AU
 E11 1 FAWAFAMI JUNI ICHI/AU
 E12 1 FAWAFAMI JUNI ICHI/AU
 E13 14 FAWAFAMI JUNI ICHI/AU
 E14 1 FAWAFAMI JUNI ICHI/AU
 E15 11 FAWAFAMI KAWA
 E16 1 FAWAFAMI KAWA
 E17 2 FAWAFAMI KAWA
 E18 1 FAWAFAMI KAWA
 E19 1 FAWAFAMI KAWA
 E20 1 FAWAFAMI KAWA
 E21 1 FAWAFAMI KAWA
 E22 1 FAWAFAMI KAWA
 E23 2 FAWAFAMI KAWA
 E24 4 FAWAFAMI KAWA
 E25 1 FAWAFAMI KAWA

Author search

09.30.02

=> S (E2 OR E3 OR E5 OR E6) AND (IMIDAZOL?)

1: "KAWAKAMI JUN"/AU
 6 "KAWAKAMI JUN ICHI"/AU
 33 "KAWAKAMI JUNI CHI"/AU
 1 "KAWAKAMI JUNI CHIRO"/AU
 7417: IMIDAZOL?

L15 1 ("KAWAKAMI JUN" AU OR "KAWAKAMI JUN ICHI"/AU OR "KAWAKAMI JUNI CHI"/AU OR "KAWAKAMI JUNI CHIRO"/AU) AND (IMIDAZOL?)

=> d l15 ibib abs hitstr

L15 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000078727 CAPLUS

DOCUMENT NUMBER: 134:0001

TITLE: Process for the preparation of 4-alkanoylimidazole derivatives and 1-(2-naphthyl)-1-(1H-imidazol-4-yl)alkanol derivatives

INVENTOR S.: Kawakami, Jun-ichi

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PEXX12

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

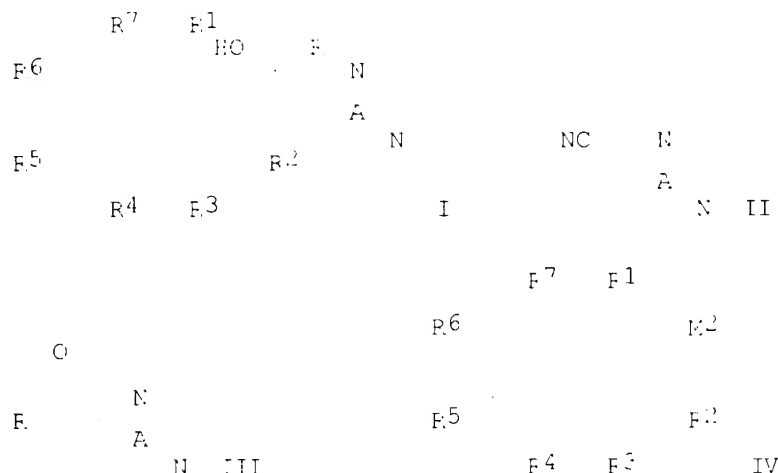
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000078727	A1	2001.12.28	WO 2000-JP4036	20000621

W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BL, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, GR, HU, ID, IL, IN, IS, JP, KG, KR, KZ,

371 06 PCT

LC, LK, LR, LT, LV, MA, MD, MG, MK, MN, MX, MZ, ND, NE, PL, RO,
 RU, SI, SK, TJ, TM, TR, UA, US, UZ, VN, YU, ZA, AM, AZ,
 BY, BG, BZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SN, TZ, UG, ZW, AT, BE, CH, CY,
 DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
 CF, CG, CI, CM, CA, CN, CW, ML, MR, NE, NG, TD, TG
 JP 2001004264 A2 21010313 JP 1000-191081 20000631
 EP 1193218 A1 21020403 EP 1000-940770 20000631
 E: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, FI, LT, LV, FI, RO
 PRIORITY APPLN. INFO.: JP 1999-175070 A 19990612
 WO 2000-JP4036 W 20000611
 OTHER SOURCE(S): CASREACT 134:15671; MARPAT 134:56671
 GI



AB An industrially advantageous process for the prepn. of compds. of general formula (I) wherein the ring A is an optionally substituted **imidazole** ring; R is an optionally substituted hydrocarbon group or a heterocyclic group; and R1, R2, R3, R4, R5, R6, and R7 are each hydrogen, optionally substituted hydrocarbyl, OH, SH, NH2, acyl, halogeno,

or the like) comprises addn. reaction of 4-cyanoimidazole (II; the ring A is same as above) with F-M1 (R is same as above; M1 = alkali metal, Mg-Y1; Y1 = halo) to give 4-acylimidazole (III; R and ring A are same as above), followed by addn. reaction of III with naphthalene alkali metals (IV; R1 - R7 are = same as above; M2 is alkali metal, Mg-Y2; Y2 is halo). This process is reduced in the no. of steps, attains a high yield, and dispenses with the use of a heavy metal compd. The compds. I exhibit a steroid C17-C20 lyase inhibitory activity (no data). Thus, a soln. of 42.7 g 4-cyanoimidazole in 500 mL THF was added dropwise to a 1.1 M

soln. of isopropylmagnesium bromide in THF (2.4 L) over a period of 30 min, stirred at 15-25 degree., treated dropwise with 10% aq. H2SO4, stirred for 30 min, neutralized to pH 8 with 30% aq. NaOH, and extd. with EtOAc (300 L times. 2) to give 82% 1-(1H-imidazol-4-yl)-2-methyl-1-propanone

(V). 2-Bromo-6-methoxynaphthalene (5.15 g) was added dropwise to a mixt. of 0.55 g and 3 mg iodine in THF at 50.degree. and stirred at 15-25.degree. for 1.5 h, followed by adding dropwise a soln. of 1 g V in THF, and the resulting mixt. was stirred at 15-25.degree. for 8 h to give,

after workup, 84% 1-(1H-imidazol-4-yl)-1-(6-methoxynaphthalen 2-yl)-2-methylpropanol.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS

FORMAT RECORD. ALL CITATIONS AVAILABLE IN THE RE

Connecting via Winspock to STN

Welcome to STN International! Enter x:x

LOGINID:sssptal610jxm

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

STN:10/01/02

(#2)

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 Apr 01 "Ask CAS" for self-help around the clock
NEWS 3 Apr 02 BELLSTEIN: Reload and Implementation of a New Subject Area
NEWS 4 Apr 02 CDB will be removed from STN
NEWS 5 Apr 02 US Patent Applications available in IFICDB, IFIPAT, and
IFICDB
NEWS 6 Apr 02 Records from IP.com available in CAPLUS, ECAPLUS, and
ZCAPLUS
NEWS 7 Apr 02 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 02 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCIFULL has been reloaded
NEWS 12 Jul 01 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 01 USAN to be reloaded July 26, 2002;
saved answer sets no longer valid
NEWS 14 Jul 20 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 01 CANCERLIT reload
NEWS 17 Aug 01 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 01 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)
now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 20 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced
NEWS 24 Sep 10 Experimental properties added to the REGISTRY file
NEWS 25 Sep 16 Indexing added to some pre-1900 records in CA/CAPLUS
NEWS 26 Sep 16 CA Section Thesaurus available in CAPLUS and CA
NEWS 27 Oct 01 CASREACT Enriched with Reactions from 1907 to 1985

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0a,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATEM 08 FEBRUARY 2002
NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer

agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:13:37 ON 01 OCT 2002

=> fil reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'REGISTRY' ENTERED AT 16:13:52 ON 01 OCT 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 30 SEP 2002 HIGHEST RN 457600-76-9

DICTIONARY FILE UPDATES: 30 SEP 2002 HIGHEST RN 457600-76-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

Uploading 10019094 cyano reactant.str

L1 STRUCTURE UPLOADED

=> d

L1 HAS NO ANSWERS

L1 STR

CN

N

N

Structure attributes must be viewed using STN Express query preparation.

=. s l1 ful
FULL SEARCH INITIATED 16:14:34 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 51045 TO ITERATE

100.0% PROCESSED 51045 ITERATIONS
SEARCH TIME: 00.00.02

6589 ANSWERS

L1 6589 SEA SSS FUL L1

=.
Uploading 10019094 elect.str

L2 STRUCTURE UPLOADED

=. d
L3 HAS NO ANSWERS
L3 STR

Ct 3

O

Hy 1

G2

N

H

G1 4

Ak 2

N

H

G1 C,H

G1 {01},{02},{03},{04}

Structure attributes must be viewed using STN Express query preparation.

=. d
L3 HAS NO ANSWERS
L3 STR

Ch 3

3

Hy 1

G2

N

H

G1 4

Ak 2

N

H

G1 C,H

G2 [01],[02],[03],[04]

Structure attributes must be viewed using STN Express query preparation.

=> s 13 ful

FULL SEARCH INITIATED 16:15:34 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 49400 TO ITERATE

100.0% PROCESSED 49400 ITERATIONS
SEARCH TIME: 00.00.03

4288 ANSWERS

L4 4288 SEA SSS FUL L3

=> fil caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

280.94

281.15

FILE 'CAPLUS' ENTERED AT 16:15:46 ON 01 OCT 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 1 Oct 2002 VOL 137 ISS 14
FILE LAST UPDATED: 30 Sep 2002 (2002C930/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SPI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> s 14 and 12 ful
2133 L4
1681 L2
L5 142 L4 AND L2

=> s 14/p
L6 1234 L4/P

=> s 16 and 12
1681 L2
L7 112 L6 AND L2

=> s inhibit?
L8 1514316 INHIBIT?

=> s imidazol?
L9 74190 IMIDAZOL?

=> s 19 and 17
L10 80 L9 AND L7

=> s 110 and lyase?
13958 LYASE?
L11 1 L10 AND LYASE?

=> s process?
L12 2844603 PROCESS?

=> s 110 and 112 ful
L13 7 L10 AND L12

=> d 113 1-7 ibib abs hitstr

L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)
ACCESSION NUMBER: 2000-11127 CAPLUS
DOCUMENT NUMBER: 1345671
TITLE: Process for the preparation of 4-alkoxyimidazole derivatives and 1-(2-naphthyl)-1-(1H-imidazol-4-yl)-alkanol derivatives
INVENTOR(S): Kawaguchi, Junichi
PATENT ASSIGNED(S): Takeda Chemical Industries, Ltd. Japan
SOURCE: J. Pharm. Med. 1999; 101: 39-44
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. KINS DATE APPLICATION NO. DATE
WO 2000/04727 A1 20000228 WO 2000/04736 20000611
W: AU, AG, AL, AM, AN, AR, AT, BA, BB, BG, BR, BY, CA, CH, CN, CP, CR, CU, DE, DM, DI, DK, EE, EG, ES, FI, FR, GB, GR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LA, LB, LG, LT, LU, LV, MA, MD, ME, MG, MK, MN, MO, MU, MY, NZ, PA, PG, PH, PL, PT, RU, SA, SI, SK, SL, SM, SN, ST, SV, TD, TH, TJ, TR, UA, US, UZ, VN, YU, ZA, AM, AL, BG, GR, KZ, KG, MD, RU, TJ, TM
RW: GM, GN, KE, MG, MW, MZ, SD, SL, SZ, TG, UG, ZW, AT, BE, CH, CU, DE, FR, GB, GR, HU, IT, LU, MC, NL, PT, SE, BF, BG, CP, CG, CI, CM, CR, CU, DE, DM, EE, EG, ES, FI, FR, GB, GR, HU, ID, IL, IN, IS, JP, KG, KR, KZ, LA, LB, LG, LT, LU, LV, MA, MD, ME, MG, MK, MN, MO, MU, MY, NZ, PA, PG, PH, PL, PT, RU, SA, SI, SK, SL, SM, SN, ST, SV, TD, TH, TJ, TR, UA, US, UZ, VN, YU, ZA
JP 200104264 A2 20010311 JP 2000 14108 20000621
EP 1193258 A1 20020401 EP 2000 040770 20000621
R: AT, BE, CH, CU, DE, ES, FR, GB, GR, HU, IT, LU, MC, NL, SE, MG, PT, IE, SI, LV, LT, PL, RO
PRIORITY APPL. INFO: JP 1999-175170 A 19990622
WO 2000-04736 W 20000611
OTHER SOURCE S: PABSTRACT 1345671 NABPAT 1345671
GI

L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)
50 degree and stirred at 15-25 degree for 1.5 h followed by adding dropwise a soln. of 1 g / in THF, and the resulting mixt. was stirred at 15-25 degree for 8 h to give, after workup, 84% 1-(1H-imidazol-4-yl)-1-(2-methoxynaphthalen-1-yl)-2-methylpropanol
IT 57090-88-7, 4-Cyanoimidazole
KL RCT (Reactant) RACT (Reactant or reagent)
(prepn of 4-alkoxyimidazole derivs and 1-(2-naphthyl)-1-(1H-imidazol-4-yl)-alkanol derivs. by addn. reaction of cyanoimidazoles with alkylmagnesium bromides followed by naphthylmagnesium bromide)
RN 57090-88-7 CAPLUS
CN 1H-imidazole-4-carbonitrile (9CI) (CA INDEX NAME)

H
N
CN

IT 247174-71-95, 1-(1H-imidazol-4-yl)-2-methyl-1-propanone
304457-79-2P, 1-(1H-imidazol-4-yl)-1-butanone
304457-46-1P, 1-(1H-imidazol-4-yl)-1-propanone
PL RCT (Reactant) (PN (Synthetic preparation) PREP
(Preparation) RACT
Reactant or reagent
(prepn of 4-alkoxyimidazole derivs and 1-(2-naphthyl)-1-(1H-imidazol-4-yl)-alkanol derivs. by addn. reaction of cyanoimidazoles with alkylmagnesium bromides followed by naphthylmagnesium bromide)
RN 147174-71-6 CAPLUS
CN 1-Propanone, 1-(1H-imidazol-4-yl)-2-methyl- (9CI) (CA INDEX NAME)

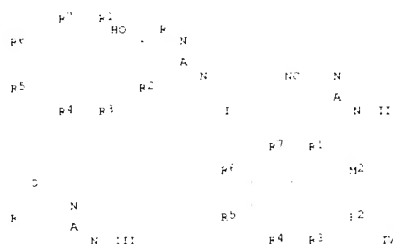
H
N
C Pr-1

RN 304457-79-2 CAPLUS
CN 1-Butanone, 1-(1H-imidazol-4-yl)- (9CI) (CA INDEX NAME)

H
N
C Pr n

N

L13 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)



must be earlier than 6.21.99
 \therefore No good

AB A new series of **imidazolyli** nitrone spin traps has been synthesized and evaluated pharmacologically. The salient structural feature of these mols. is the presence of an **imidazole** ring substituted by aryl or heteroarom. moieties. This connectivity imparts to the nitrone superior neuroprotective properties *in vivo* and in parallel reduced side effects and toxicity. Thus, I administered i.p. protects 18 mice from lethality induced by an intracerebroventricular administration of test Bu hydroperoxide (t-BHP), an oxidant capable of inducing neurodegenerative processes. Administration of the archetypal nitrone phenyl tert-Bu nitrone (PBN) at an equimolar dose also affords some protection but in this test. However, this activity is accompanied by hypothermia, whereas no such effect is apparent for I. Moreover, previously prep'd, nonsubstituted or alkyl-substituted **imidazolyli** nitrone were shown to be extremely toxic to rats in contrast to the compds. prep'd in this study. The obs'd. activities *in vivo* correlate well with the calculated partition coeffs. (clogP) and HOMO energy level.

IT 34626-11-4P 94938-02-0P 94938-03-1P 97479-11-0P 97479-78-5P 102907-99-8P

$$\begin{array}{c} \text{H} \\ | \\ \text{N} \\ | \\ \text{N} \end{array}$$
$$\begin{array}{c} \text{Ph} \quad \text{H} \quad \text{CHO} \\ | \quad | \\ \text{N} \\ | \\ \text{Me} \end{array}$$
$$\begin{array}{c} \text{Me} \\ | \\ \text{Ph} \cdot \text{N} \quad \text{CHO} \\ | \\ \text{N} \end{array}$$

RN 37749-71-8 CAPLUS
CN 1H-imidazole 4-carboxaldehyde, 2-(4-methoxyphenyl)- (14C) 10A
INDEX NAME:

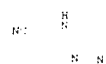
$$\begin{array}{c} \text{OHC} \quad \text{H} \\ \quad \quad \text{N} \\ \quad \quad \text{N} \end{array}$$
$$\begin{array}{c} \text{OHC} \quad \text{H} \\ \quad \quad \text{N} \end{array}$$
$$\begin{array}{ccc} & \text{H} & \\ \text{NC} & \text{N} & \text{O} \\ & \text{N} & \\ & \text{N} & \end{array}$$
$$\begin{array}{ccc} & \text{H} & \text{H} \\ & | & | \\ \text{NC} & \text{N} & \text{N} \\ & | & | \\ & \text{N} & \text{N} \end{array}$$
$$\begin{array}{c} \text{N} \\ | \\ \text{H} \\ | \\ \text{N} \\ | \\ \text{NC} \end{array}$$
$$\begin{array}{c} \text{H} \\ | \\ \text{NC} \cdots \text{N} \end{array}$$
$$\begin{array}{c} \text{H} \\ | \\ \text{N} \end{array} \quad \text{CH}_3$$

NC

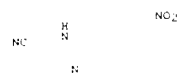
$$\text{H}:: \quad \text{N}$$
$$\begin{array}{c} \text{H} \\ | \\ \text{N} \\ | \\ \text{C} \\ | \\ \text{N} \\ | \\ \text{H} \end{array}$$

$\frac{1}{2} \times \frac{1}{2}$

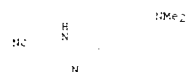
L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2012 ACS Continued
 RN 274251-91-8 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-pyridyl)- (9CI) (CA INDEX NAME)



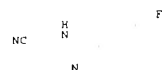
RN 274251-92-9 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 274251-93-0 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-dimethylaminophenyl)- (9CI) (CA INDEX NAME)



RN 274251-94-1 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



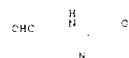
RN 274251-95-2 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2012 ACS Continued
 RN 274251-92-4 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(2-naphthalenyl)- (9CI) (CA INDEX NAME)

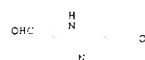
OHC



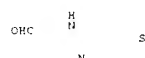
RN 274251-93-5 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(2-furyl)- (9CI) (CA INDEX NAME)



RN 274251-94-6 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(3-furyl)- (9CI) (CA INDEX NAME)

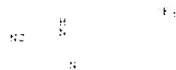


RN 274251-95-7 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(3-thienyl)- (9CI) (CA INDEX NAME)



RN 274251-96-8 CAPLUS
 CN [2,4'-Bi-1H-imidazole]-4-carboxaldehyde (9CI) (CA INDEX NAME)

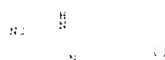
L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2012 ACS Continued



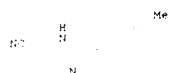
RN 274251-96-9 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



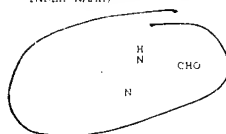
RN 274251-97-4 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(3-chlorophenyl)- (9CI) (CA INDEX NAME)



RN 274251-98-1 CAPLUS
 CN 1H-Imidazole-4-carbonitrile, 2-(4-methylphenyl)- (9CI) (CA INDEX NAME)

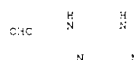


RN 274251-91-3 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(2-naphthalenyl)- (9CI) (CA INDEX NAME)

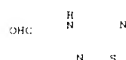


103 derivatives
 of H. vs. CH₃ ... ?
 (@ carbonyl)

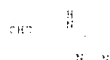
L13 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2012 ACS Continued



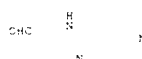
RN 274251-97-9 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(2-thiazolyl)- (9CI) (CA INDEX NAME)



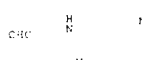
RN 274251-98-2 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(2-pyridyl)- (9CI) (CA INDEX NAME)



RN 274251-99-1 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(3-pyridyl)- (9CI) (CA INDEX NAME)



RN 274251-10-4 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(4-pyridyl)- (9CI) (CA INDEX NAME)



RN 274251-11-1 CAPLUS
 CN 1H-Imidazole-4-carboxaldehyde, 2-(4-pyridyl)- (9CI) (CA INDEX NAME)

ALL ANSWER : OF 7 CAPTAIN'S FLIGHT : 1 ACS FORM 100-1

[illegible]

```

      NMe2
      |
CH3-C-N
      |
      H

```

EN 1242 137 CALINS
 ON 1H Indazole-4-carboxaldehyde, 1-methyl-1H-1H-1H-indazole-4-carboxaldehyde
 CA
 INCH NAME

CF₃

OHC H
 N

Br

PN 117973-14-8 CAPBUS

Chem Name: 6-bromo-4-phenylhex-5-yn-1-ol

INCAS NAME: 6-bromo-4-phenylhex-5-yn-1-ol

Chem Name: 6-bromo-4-phenylhex-5-yn-1-ol

INCAS NAME: 6-bromo-4-phenylhex-5-yn-1-ol

CC1=CC=C(C=C1)C(=O)N1C(=O)C(=O)N1C2=CC=CC=C2

113 ANSWER 3 OF 7 CAPLUS, COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 1995024646 CAPLUS
 DOCUMENT NUMBER: 0335986
 TITLE:
 Quinolone derivatives, process for their
 preparation, and their therapeutic applications
 INVENTOR(S):
 Siemer, Gerard; Somerville, Katherine Muller;
 Jean Claude
 PATENT ASSIGNEE(S):
 Synthelabo S. A., Fr.
 SOURCE:
 U.S., 1 pp. Contain-part of U.S. Ser. No.
 967, 129,
 abandoned.
 CCRN: USXAM
 Patent
 English
 DOCUMENT TYPE
 LANGUAGE:
 FAMILY ACQ. NUM. COUNT: 1
 PATENT INFORMATION:

12-694 = good date

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BR 547127	A	1994-06-06	BR 1994-0144	1994-06-06
FR 2683094	A	1994-05-21	FR 1994-1144	1994-06-09
FR 2683094	B1	1994-07-11		
US 5432293	A	1994-07-11	US 1994-27044	1994-07-11

PRIORITY APPL. INFO.: FF 1491-1314- 1491-1314
 1491-1322-2 1491-1313
 1491-1497-10 1491-1313
 1493-35629 1491-1313

OTHER SOURCE(S): MARKPAT 12315467
 GI

$$\begin{array}{ccccccc} & & P^4 & & & & \\ & & N & & & & P^5 \\ & & & & & & \\ P^3 & & N & & P^2 & & N \end{array}$$

AR The present invention provides a compound which is a quinoline derivative of the formula I: R₁ represents either 1H-tetrazol-5-yl, or GDM, R₂ represents either (C1-7 alkyl) or (C2-8 alkenyl), R₃ and R₄ represent, independently of each other, hydrogen, halogen, cyano group, C₁-6 alkyl, C₂-7 cycloalkyl, C₁-4 aryl, aryl, aryl C₁-6 alkyl, aryl C₂-8 alkenyl, or NH-C₁-6 alkyl, or R₃ and R₄ represent, independently of each other, hydrogen or C₁-4 alkyl group, or 1-4 (H, the group is which is

113 ANSWER 4 OF 7 JULIUS COPYRIGHT © 2003

[illegible][illegible]

```

      F
      H
      : H+
      :   |
      N   |
          |
REFERENCE COUNT:    00     THERE ARE 29 CITED REFERENCES AVAILABLE
FOR THIS           RANGE . ALL CITATIONS AVAILABLE IN THE
RE FORMAT

```

11: ANSWER 3 OF CAPLUS COPYRIGHT 2002 ACS (Continued).
 4 and R6 represents CH, (C1-4)alkoxy, (C1-4)alkoxy(C1-4)alkoxy, or
 (C3-7)cycloalkyl(C1-4)alkoxy group, or a pharmaceutically
 acceptable salt thereof. Evaluation as angiotensin II antagonists: ICS between
 5 mM and 100 nM.
 1: mu.M. Pharmaceutical formulations were given.
 IT 149875-70-7P
 R1: BAC (Biological activity or effector, except adverse ; BSU
 (Biological
 study, unclassified ; SPW (Synthetic preparation) THU
 (Therapeutic use
 R10L (Biological study): PEP (Preparation); USES (Uses)
 (imidazole)methyl,phenylquinoline derivs. as angiotensin II
 antagonists)
 PH 149875 70-7 CAPLUS
 CH 1H (decade)-5-carbon,thienyl,
 2 (decade)-4-chloro-1H-1,2,3-triazol-5-yl
 2,4,6-trimethyl-5,7-pyridinedimethyl, 2001 CA (decade) NAME

1. $\frac{1}{2}$ 2. $\frac{1}{2}$

2. H^+

```

IT 149853-21-4P 149853-22-5P 150146-78-4P
150146-78-5P 164335-13-1P, 2-Buryl-4-phenethylimidazole
N-alkoxaldehyde
PM PCT Purification or recovery ; PCT Peptide ; PIN Synthetic
preparation ; PID Identification ; PAT Patent or reagent
imidazolemethyl phenylpyridine derivs. as antidepressant II
antagonists
PN 149853-21-4 CAPSULE
N IN Imidazole-4-alkoxaldehyde, 1-Ethyl-1,2-phenylethyl-
imidazolemethyl phenyl pyridine derivs. as antidepressant

```

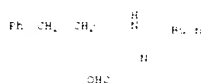
$$\text{Ph}-\text{CH}=\text{CH}-\overset{\text{H}}{\underset{\text{N}}{\text{C}}}-\text{Bu}-\text{C}$$

N

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

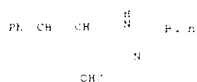
[illegible]

L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)
Molecular Formula: C₁₄H₁₄N₂O
INDEX NAME



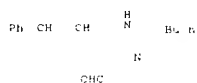
• H₂O

RN 150146-78-4 CAPLUS
CN 1H-Imidazole-4-carboxaldehyde, 2-butyl 5-(phenylethynyl)-
-CA INDEX NAME



RN 150146-79-5 CAPLUS
CN 1H-Imidazole-4-carboxaldehyde, 2-butyl 5-(2-phenylethynyl)-
ethanedithiolate
-CA INDEX NAME

CM 1
CRN 150146-78-4
CMF C16 H18 N2 O

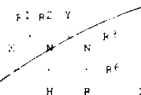


CM 2
CRN 144-12-7
CMF C2 H2 O4

L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1991:42398 CAPLUS
DOCUMENT NUMBER: 114:42398
TITLE: Process for the preparation of B-100 protein
INVENTOR(S): Reisch, Eike; Casutt, Michael
PATENT ASSIGNER(S): Merck Patent G.m.b.H., Fed. Rep. Ger.
SOURCE: U.S., 14 pp. Cont.-in-part of U.S. 4,877,882.
COLEN: USXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4937351	A	1990-02-26	US 19-9-422429	1990-11-17
DE 41247	A1	1990-11-15	DE 19-9-361247	1990-04-29
DE 41247	A1	1990-11-15	DE 19-9-361247	1990-04-29
US 4736872	A	1988-01-12	US 19-8-33141	1987-02-07
US 4736872	A	1988-01-12	US 19-8-33141	1987-02-07
US 4837400	A	1989-09-05	US 19-8-141161	1988-01-06
US 4878842	A	1989-11-21	US 19-8-213347	1988-01-06
US 1095118	A	1992-01-14	US 19-8-058147	1988-04-05

PRECEDENT PERSON INFO:
OTHER SOURCE(S): HARPAT 14:42398
GI

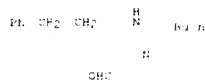


AB A procedure for prepn. of the title compd. comprises redn. of optically active hydantoin (I) R₁, R₂ = H, on substituted alkyl, cycloalkyl, aralkyl, heteroalkyl (containing N, or S, R₁R₂ = on substituted heteroalkylene (containing N, or S, R₁ = H, on substituted benzyl, or Y = O, II) R₁ = O, to alkyl, II R = H, R₂ = CH₃, etherification to ether, II (R = H; R₁ = OCH₃; R₂ = O, or alkyl), and reaction of the latter with a cyano silane in the presence of a Lewis acid to give nitriles II (R = H, R₁ = cyano, II) (HARPAT 14:42398, 1991:42398, 1990-11-17, R₁ = H, R₂ = H).

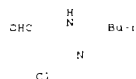
L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)

C C
HO C C OH

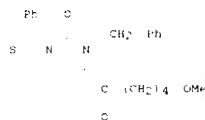
RN 150146-78-4 CAPLUS
CN 1H-Imidazole-4-carboxaldehyde, 2-butyl 5-(phenylethynyl)-
-CA INDEX NAME



IT 83857-96-9P, 2-butyl 4-(2-oxo-1-imidazolyl)carboxaldehyde
AL: RCT Reagent; SH: Synthetic preparation; PEP: Preparation
Reaction of reagent
Imidazolylmethyl phenylglyoxal derivative as angiotensin II antagonist
RN 150146-78-4 CAPLUS
CN 1H-Imidazole-4-carboxaldehyde, 2-butyl 5-(phenylethynyl)-
-CA INDEX NAME

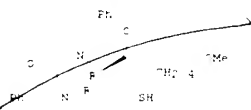


L13 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2002 ACS (Continued)
R₁ = PhCH₂, X = S) gave (7RS,7aR)-I (R = H, R₂ = OH) which was treated by
1,1-dithionylimidazole in MeCN to give (7RS,7aR)-I (R₂ = imidazolyl-1-carboxyloxy). This was treated by Me₂SiCN in CH₂Cl₂ at -20 degree in presence of TiCl₄ to give (7RS,7aR)-I (R₂ = cyano).
Prepn. of further D (+) biotin intermediates, e.g.,
(2aS,4S,6aR)-1,3-bis(phenyl-4-(4-carboxybutyl) tetrahydrothienyl(3,4-d)-imidazol-2-yl)-one was also given.
IT 112938-13-3P 112938-14-4P 112938-15-5P 112938-16-6P 112938-18-8P 112968-29-3P 112968-32-8P
AL: RCT Reagent; SH: Synthetic preparation; PEP: Preparation
Prepn. and reaction of, in prepn. of biotin intermediate
RN 112938-13-3 CAPLUS
CN 1H-5H-Imidazole(1,5-d)-imidazol-5-one, tetrahydro-5-methoxy(oxopentyl)-3-phenyl-1-phenylethynyl-
-CA INDEX NAME



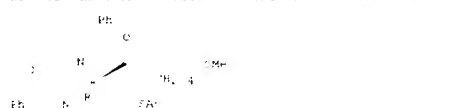
RN 112938-14-4 CAPLUS
CN 2-Imidazolylmethyl, 4-(5-methoxy(oxopentyl)-2-oxo-1,3-bis(phenylethynyl)-4-imidazolylmethyl) ester, (4R trans)-
-CA INDEX NAME

Absolute stereochemistry:

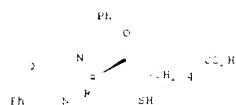


RN 112938-15-5 CAPLUS
CN Ethanethioic acid, S [(5-methoxy(oxopentyl)-2-oxo-1,3-bis(phenylethynyl)-4-imidazolylmethyl) ester, (4R trans)-
-CA INDEX NAME

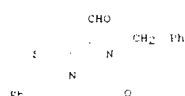
Absolute stereochemistry:

[illegible]

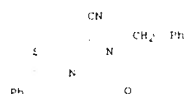
Absolute stereoselectivity.



RN 112948 1c 4 CATION
CN 1H 3H Imidazole, 1,2,4-triazole-5-carboxaldehyde,
tetrahydro-5-oxo-5-phenyl-1-
-phenylmethyl- 101 JCA INDEX NAME



RN 11954-24-3 CAPLIN
CN 14 3H Imidazo[1,5-c]thiazole-7-carbonitrile,
tetrahydro 5-oxo 3-phenyl-
(phenylmethyl)- - 1:1 CA INDEX NAME



11. ANSWER 5 OF 7 CAPLUS COPYRIGHT 2012 ACS
 ACCESSION NUMBER: 140142354; CAPLUS
 DOCUMENT NUMBER: 11012354;
 TITLE: Process for the preparation of D-(-)-Eriodin
 INVENTOR(S): Poetsch, Elke; Casati, Michael
 PATENT ASSIGNER(S): Merck Patent G.m.b.H., Fed. Rep. Ger.
 SOURCE: U.S., 18 pp. Contain. in part of U.S. 141,161.
 COPEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 PATENT ACC. NUM. COUNT: 4
 PATENT INFORMATION:

[illegible]

OTHER NUMBERS : MAF 147 11312314.

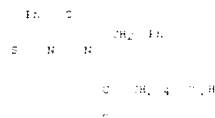
$$\begin{array}{ccccccc} \text{P} & \text{P} & \text{Y} & & & & \\ & & & & \text{P} & \text{CH}_2\text{N} & \text{NCH}_2\text{P} \\ \text{X} & \text{N} & \text{NP} & & & & \\ & & & & & & \text{CH} \\ & & \text{p4} & & & & \\ & & \text{p5} & \text{II} & \text{S} & (\text{CH}_2)_4\text{CO}_2\text{H} & \text{III} \end{array}$$

AB The process of prep. the title compd. 1 is characterized in that the synthesis is carried out via an intermediate II. R₁, R₂ = H, substituted alkyl, or (iso)alkyl, aryl, allyl, heteroaryl wherein the heteroatom is N, O, S; R₃ = substituted alkylene, heteroalkylene, or substituted phenylene; R₄ = O, N, Y = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817,

113 ANSWER 4 OF 10: "BRIAN" IS THE RIGHT . . . ANSWER. (10/11/2014)

```

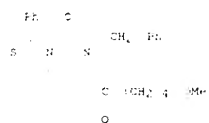
RD 112668 3-0-0 CAPLIN
CN 1H,3H Imidazo[1,5-a]thiazole-7 hexanoic acid,
tetrahydro-epsilon-,5-dioxo
      3-phenyl- & (methylsulfonyl)
SMI 100A INDEX NAME
```



```

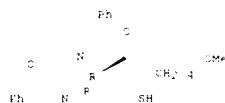
L13 ANSWER 5 OF CARLUS COPYRIGHT 2000 ACS Continued
derivs. which by xrow methods is converted to I.
JAS,RS,KA:III was
prepn.
I7 112938-13-3P 112938-14-4P 112938-15-5P
112938-18-8P 112968-29-3P 112968-32-8P
RL: RCT (Reactant), SYN (Synthetic preparation), PREP (Preparation),
(prepn. and reaction of, in prepn. of biotin intermediate)
RN 112938-13-3 CAPLUS
ON 3H,5H-imidazo[1,2-c]thiazol-5-one,
tetrahydro-7,5-methoxy-, exocyclic-1,3-
diethyl-4-phenylmethyl-, 4Cl CA INDEX NAME

```



PN 112938-14-4 CAPLUS
TN 2-Imidazolidinone,
4-(4-methylphenyl)-5-(3-methoxy-1-oxopentyl)-1,1-
bis(phenylmethyl)-, 4R,trans-[2C] FA INDEX NAME

A SINGLE STEREOCENTRISIM



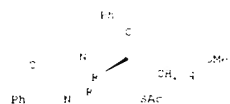
```

PR      112558-15-5  CAPLUS
CN      Ethane-1,10-diyl, 2,11-bis[4-methoxy-1-oxopentyl, 2-oxo-1,3-
bis(phenyl)methyl, 4-imidazolidinyl)methyl, ester, 94R trans-
      CA
INDEX NAME

```

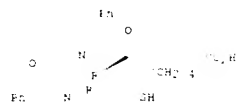
Absolute stereochemistry

L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS

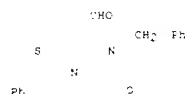


RN 112498-00-6 CAPLUS
CN 1H,3H-Imidazo[1,5-b]pyridine-2-carbonitrile,
5-mercaptophenyl-1-phenyl-1H-imidazole-3-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME

Absolute stereochemistry:



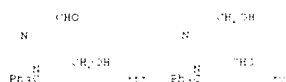
RN 112498-19-9 CAPLUS
CN 1H,3H-Imidazo[1,5-b]pyridine-2-carboxaldehyde,
tetrahydro-5-oxo-3-phenyl-1-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME



RN 112498-24-3 CAPLUS
CN 1H,3H-Imidazo[1,5-b]thiazole-7-carbonitrile,
tetrahydro-5-oxo-3-phenyl-1-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME

L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS

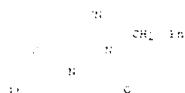
ACCESSION NUMBER: 19914-6222 CAPLUS
DOCUMENT NUMBER: 471622
TITLE: Synthesis of 4,5-disubstituted imidazoles
AUTHOR(S): Navadias, Gerry; Loh, Bing; Saintonge, Roger
CORPORATE SOURCE: Bristol Lab., Canada, Canada, Pl. 15P 171, Can.
SOURCE: Can. J. Chem. 1992, 70, 6, 121-9
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 471622
GI



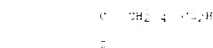
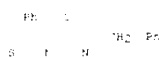
AB Introduction of PhCO on the N of imidazole 4,5 dicarboxylic acid
esters or 4,5 dihydroxymethylimidazole deactivated the functional
group adjacent to the protecting group and allowed reactions to take
place preferably or exclusively on the other functional group. Thus,
di-Me 1-triphenylmethylimidazole 4,5 dicarboxylate (I), on treatment
with MeNH₂ produced Me
4-hydroxymethyl-1-triphenylmethylimidazole 5-
carboxylate and Me
4-methylamino carbonyl 1-triphenylmethylimidazole 5-
carboxylate, resp. Redn. of I with LiBH₄ gave Me
4-hydroxymethyl-1-
1-triphenylmethylimidazole 5-carboxylate. Treatment of 4,5-
bis(hydroxymethyl)-1-triphenylmethylimidazole (II) with MeNH₂
and with
Ac₂O afforded bis(hydroxymethyl)-4-trimethylammoniumethyl-1-
1-triphenylmethylimidazole, and 4-acetoxymethyl-1-hydroxymethyl-1-
1-triphenylmethylimidazole, resp. Oxidn. of II with activated MnO₂
produced
the monoaldehydes III and IV in a ratio of 1:1. A new mild
process for deprotection of N-triphenylmethylimidazoles,
compatible with acid sensitive groups in the mol., is reported.
The
synthesis of several 4,5-disubstituted imidazoles is also
described.

IT 82032-50-6P
PL: RCT (Reactant) : SYN (Synthetic preparation) : PREP (Preparation)
Prepn. and deprotection of reaction of, with thionyl chloride

L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS



RN 112498-00-6 CAPLUS
CN 1H,3H-Imidazo[1,5-b]pyridine-2-carbonitrile,
5-mercaptophenyl-1-phenyl-1H-imidazole-3-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME



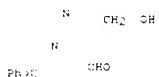
RN 112498-19-9 CAPLUS
CN 1H,3H-Imidazo[1,5-b]pyridine-2-carboxaldehyde,
tetrahydro-5-oxo-3-phenyl-1-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME



RN 112498-24-3 CAPLUS
CN 1H,3H-Imidazo[1,5-b]thiazole-7-carbonitrile,
tetrahydro-5-oxo-3-phenyl-1-
1-phenylmethyl-1H-imidazole-3-CA INDEX NAME

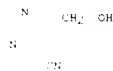
L13 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2002 ACS

RN 82032-50-6 CAPLUS
CN 1H-Imidazole-5-carboxaldehyde,
4-(hydroxymethyl)-1-(1-triphenylmethyl)-
1H-imidazole-3-CA INDEX NAME



IT 82032-51-7P
PL: RCT (Reactant) : SYN (Synthetic preparation) : PREP (Preparation)
Prepn. and deprotection of reaction of, with thionyl chloride
RN 82032-51-7 CAPLUS
CN 1H-Imidazole-4-carbonitrile,
5-hydroxymethyl-1-(1-triphenylmethyl)-
1H-imidazole-3-CA INDEX NAME

CPH:



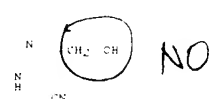
IT 82032-53-9P
PL: RCT (Reactant) : SYN (Synthetic preparation) : PREP (Preparation)
Prepn. and substitution reaction of, with aminobethanethiol
RN 82032-53-9 CAPLUS
CN 1H-Imidazole-4-carbonitrile, 5-chloromethyl-, monohydrochloride
1H-imidazole-3-CA INDEX NAME



● HCl

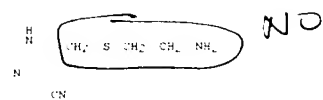
IT 82032-52-8P 82032-54-0P
PL: SYN (Synthetic preparation) : PREP (Preparation)
Prepn. of

LIS ANSWER 7 OF 7. (CAIUS) (MATERIAL 2) (A) (C) (D) (E) (F) (G) (H) (I) (J) (K) (L) (M) (N) (O) (P) (Q) (R) (S) (T) (U) (V) (W) (X) (Y) (Z) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MM) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NN) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YY) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MM) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NN) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YY) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ)

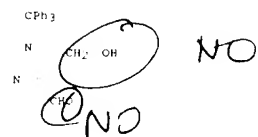


• HCl

EN 8. 2. 14. CAIUS
 CN 1H-Imidazole-4-carbonitrile, 1-(2-aminoethyl)-, 1H-[1,2,4]triazole-5-carbonitrile
 CA INDEX NAME:



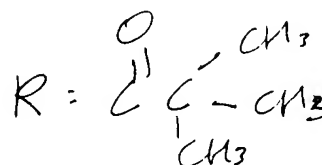
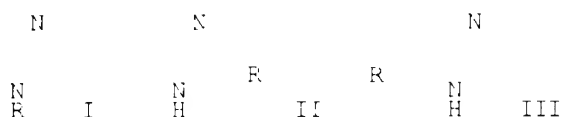
IT 82032-49-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn, reactions of, and NMR of)
 EN 82032-49-3 CAIUS
 CN 1H-Imidazole-4-carboxaldehyde,
 5-hydroxymethyl-1-(2-triphenylmethyl)-
 (901) CA INDEX NAME:



get reference

vs. claim 17 for 10/019094

24 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1977:106471 CAPLUS
DOCUMENT NUMBER: 36:106471
TITLE: Photochemical reactions. Part 91. Photochemistry of
imidazolides. I. The photo-Fries-type rearrangement
of N-substituted imidazoles
AUTHOR(S): Iwasaki, Shigeo
CORPORATE SOURCE: Org.-Chem. Lab., ETH, Zurich, Switz.
SOURCE: → Helv. Chim. Acta (1976), 59(8), 2733-52
CODEN: HCACAV
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



AB Imidazoles I (R = Ac, Me(CH₂)₆CO, cyclohexylcarbonyl, Me₃CCO, Bz, Me₂C:CHCO, MeO₂C, Et₂NCO, PhCH₂) underwent photochem. rearrangements to give 6-45% II and 10-35% III. The structures of II and III were confirmed

by spectral data, which are reported.

IT **61985-31-7P**

EL: PREP (Preparation)

(by photochem. rearrangement of 1-acyl analog)

FN 61985-31-7 CAPLUS

CN 1-Propanone, 1-(1H-imidazol-4-yl)-2,2-dimethyl- (9CI) (CA INDEX NAME)

